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providing second starting material, said second starting material being one of amino acids and amino acid condensates;

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mixing said first starting material and said second starting material in a high-pressure withstanding container under an aqueous system; and

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heating the mixture to a temperature greater than 100° C to cause a reaction between said first starting material and said second starting material.

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11. (Amended) Carboxylic acid and amino acid or amino acid condensate reactants according to claim 7, wherein

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N-terminals of said second starting material are acid-amide bound with said first starting material.

REMARKS

In the August 27, 2001 Office Action, claims 1-7, and 11 stand rejected in view of prior art. Claims 6, 7, and 11 were objected to under 37 C.F.R. §1.75(c) as being in improper form. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response, Applicants have amended independent claims 1 and 7 to distinguish them from the prior art. Applicants have amended claims 6, 7, and 11 to obviate the objection due to impropriety of form. Thus, claims 1-11 are pending, with claims 1, 7 and 9 being the only independent claims. Claims 8-10 were withdrawn from consideration. Reexamination and reconsideration of the pending claims are respectfully requested in view of the above amendments and the following comments.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages that begin with the caption "**MARKED-UP VERSION OF AMENDMENTS**" show the changes made to the specification and claims by the current amendment.

Election of Species

On page 2 of the Office Action, Applicants' election without traverse in paper number 4 was acknowledged. Thus, non-elected claims 8-10 were withdrawn from further consideration.

Claim Objections - 37 C.F.R. §1.75(c)

In paragraph 1 of the Office Action, claims 6, 7, and 11 were rejected under 37 C.F.R. §1.75(c) as being in improper form. In response, Applicants have amended claims 6, 7, and 11 to correct the improper multi-dependency. Therefore, Applicants believe that the claims 6, 7, and 11 now comply with 37 C.F.R. §1.75(c). Withdrawal of the objection is respectfully requested.

Rejections - 35 U.S.C. § 102

In paragraphs 2-3 of the Office Action, claims 1, 3-4, 6-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,716,380 to van Pottelsberghe dela Potterie (the Potterie patent). Claim 11 stands rejected as being anticipated by U.S. Patent No. 5,189,016 to Madsen et al. In response, Applicants have amended independent claims 1 and 7 to clearly define the present invention over the prior art of record.

In particular, independent claims 1 and 7 have been amended to recite that the carboxylic acids and amino acids are mixed in a high-pressure withstanding container and heated to a temperature greater than 100° C to cause a reaction between the carboxylic acids

and amino acids. Applicants believe that the Potterie patent and the Madsen patent do not disclose or suggest the arrangement set forth in claims 1 and 7.

More specifically, the Office Action refers to the Example 2 described in column 3 of the Potterie patent. The reaction in the Example 2 is, however, mainly the reaction of the hydrolysed plant protein. Therefore, methionine, lactic acid, and palmitic acid are used in the process to act as catalysts for the reaction of the hydrolysed plant protein, not to cause a reaction between methionine and the carboxylic acids. Furthermore, the Potterie patent clearly states in column 3, line 3 that the mixture is heated under reflux. Since the boiling point of water is 100° C, reflux is impossible at a temperature greater than 100° C. On the other hand, claims 1 and 7 specifically require that the reaction between the carboxylic acids and amino acids be caused, and that the temperature of the mixture be greater than 100° C. Claims 1 and 7 further require the use of a high-pressure withstanding container. In other words, the methods set forth in claims 1 and 7 require the reaction between carboxylic acids and amino acids that takes place at a temperature greater than 100° C, where reflux of water is impossible and the use of a high-pressure withstanding container is necessary. This arrangement is not disclosed or suggested by the Potterie patent.

Regarding the Madsen patent, it does not disclose the limitation on the temperature or the use of high-pressure withstanding container. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each and every element of the claim within the reference. Therefore, Applicants respectfully submit that claims 1 and 7, as now amended, are not anticipated by the Potterie patent or the Madsen patent. Withdrawal of this rejection is respectfully requested.

Moreover, Applicants believe that the dependent claims 3-4, 6, and 11 are also allowable over the prior art of record. Since claims 3-4, 6, and 11 depend from independent claims 1 and 7, they are narrower. Therefore, claims 3-4, 6, and 11 cannot be disclosed or suggested by the Potterie patent or the Madsen patent. Thus, Applicants believe that since the prior art of record does not anticipate the independent claims 1 and 7, neither does the prior art anticipate the dependent claims 3-4, 6, and 11.

Applicants respectfully request withdrawal of the rejections.

Rejections - 35 U.S.C. § 103

In a paragraph preceding paragraph 4 of the Office Action, the Office Action advises Applicants to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made. Applicants hereby confirm that the subject matter of the various claims was commonly owned by all the joint inventors at the time any inventions covered therein were made.

In paragraphs 4-6 of the Office Action, claims 1, 2, and 5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,032,676 to Heins et al. In response, Applicants have amended independent claim 1 as mentioned above. Applicants believe that the arrangement set forth in claim 1 is not disclosed or suggested by the Heins patent.

More specifically, the Office Action refers to the process described in column 3, lines 58-65 of the Heins patent. The reaction described therein, however, takes place in organic solvent or solution of organic solvent, not under an aqueous system as required in claim 1. Furthermore, this reaction takes place at a temperature of from 50° C to 100° C, while claim 1 now clearly requires heating of the mixture up to a temperature greater than 100° C.

Therefore, the arrangement of claim 1 is *not* disclosed or suggested by the Heins patent or any other prior art of record. It is well settled in U.S. patent law that the mere fact that the prior art can be modified does *not* make the modification obvious, unless the prior art *suggests* the desirability of the modification. Accordingly, the Heins patent or the prior art of record lacks any suggestion or expectation of success for combining the patents to create the Applicants' unique arrangement claim 1.

Regarding claims 2 and 5, they depend from claim 1. Therefore, claims 2 and 5 are narrower than claim 1. Since the Heins patent or any other prior art of record does not render the arrangement of claim 1 obvious, the Heins patent and other prior art of record cannot make the arrangements of claims 2 and 5. Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

* * *

In view of the foregoing amendment and comments, Applicants believe that claims 1-7 and 11 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,



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MARKED-UP VERSION OF AMENDMENTS

IN THE CLAIMS:

Claims 1, 3-7, and 11 have been amended as follows:

1. (Amended) A method for manufacturing carboxylic acid and amino acid or amino acid condensate reactants, comprising the steps of: characterized in

providing first starting material, said first starting material being carboxylic acids;

providing second starting material, said second starting material being one of amino

acids and amino acid condensates;

mixing said first starting material carboxylic acids and said second starting material
amino acids or amino acid condensates in a high-pressure withstandng container under an
aqueous system; and

heating the mixture to a temperature greater than 100° C or more to cause a reaction
between said first starting material and said second starting material.

3. (Amended) The manufacturing method set forth in claim 1 or 2, wherein
said first starting material is carboxylic acids are at least one 1 or 2 or more organic
acids selected from the group consisting of acetic acid, lactic acid, tartaric acid, citric acid,
succinic acid, and fumaric acid, and or their salts.

4. (Amended) The manufacturing method set forth in claim 1 or 2, wherein
said first starting material is at least one of carboxylic acids are fatty acids and or their
salts.

5. (Amended) The manufacturing method set forth in claim 1 or 2, wherein said first starting material is carboxylic acids are selected from the group consisting of uronic acids, acidic polysaccharides containing uronic acids, and acidic oligosaccharides containing uronic acids, and or their salts.

6. (Amended) The manufacturing method set forth in any of claims 1 through 5, wherein

said second starting material is one of amino acids or amino acid condensates are the amino acids, or and compounds containing peptides or proteins, the peptides having in which two or more combined amino acids are combined.

7. (Amended) Carboxylic acid and amino acid or amino acid condensate reactants manufactured by a the method comprising the steps of: any of claims 1 through 6

providing first starting material, said first starting material being carboxylic acids;
providing second starting material, said second starting material being one of amino acids and amino acid condensates;

mixing said first starting material and said second starting material in a high-pressure withstanding container under an aqueous system; and
heating the mixture to a temperature greater than 100° C to cause a reaction between said first starting material and said second starting material.

11. (Amended) Carboxylic acid and amino acid or amino acid condensate reactants according to claim 7, wherein

~~containing compounds in which the N-terminals of said second starting material amino acids or amino acid condensates are acid-amide bound with said first starting material carboxylic acids.~~